FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20054

In the Matter of	)	
	)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability	)	CC Docket No. 98-147
	)	
	)	
	)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	)	CC Docket No. 96-98

SECOND FURTHER NOTICE OF PROPOSED RULEMAKING IN CC DOCKET NO. 98-147 AND FIFTH FURTHER NOTICEOF PROPOSED RULEMAKING IN CC DOCKET NO. 96-98

COMMENTS OF COVAD COMMUNICATIONS COMPANY

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Introduction and Summary

In *GTE v. FCC*, the D.C. Circuit vacated and remanded certain of the collocation rules the Commission had adopted in the *Advanced Services First Report and Order*.[1] In a *Second Further Notice*, the Commission subsequently invited comment on what actions to take in response to that decision. Specifically, the Commission invited comment on minimum space requirements for physical collocation, on issues relating to collocation at remote incumbent LEC premises, and on rules necessary to facilitate line sharing and subloop unbundling.

The Commission is presiding over national telecommunications policy at a time of epic change in the competitive landscape. In this case, however, change is not good. In recent weeks, competitive LECs have begun to fail. Some, such as GST and Prism, have declared bankruptcy or announced a cessation of operations. Some, such as Intermedia and NorthPoint Communications, have been acquired at a deep discount. Some, such as ICG, have seen their market capitalization drop to virtually unsustainable levels. Does the loss of share value in and of itself matter? No. What matters is what this reflects: the incumbents are waging a war of attrition – the war to drive competitive LECs out of business. And what is the Commission doing about it? It has yet to even recognize the problem.

The competitive LEC industry is at the most important crossroads in its four-year history. The Commission is at a crossroads as well. How we got where we are today,

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[1] *GTE v. FCC*, 205 F.3d at 422-24. *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, First Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 4761 (1999) (*Advanced Services First Report and Order*), *aff'd in part and remanded in part sub nom. GTE Service Corp. v. FCC*, 205 F.3d 416 (D.C. Cir. 2000) (*GTE v. FCC*).

and the Commission's reaction, will set the course for recovery – or failure – of competition in the local telecommunications market that the Commission has fought so hard to encourage.

So, how did we get where we are today? The Commission is certainly to be applauded for its past actions in opening markets to competition. At the same time, in the face of a slew of incumbent LEC court challenges and remands of Commission rulemakings, the Commission seems to have lost its will and its way. The four-year war of attrition waged by incumbent LECs has been fought on numerous fronts, many of which are at issue in this rulemaking. Collocation is at the core of the weapons of attrition that incumbent LECs have used. For example, in the early days of Covad's network buildout, Bell Atlantic quoted Covad physical collocation prices as follows—

- In one central office in Virginia, $412,226.
- In a single central office in New Jersey, $368,141.
- In one central office in Maryland, $154,711.

Why are these prices—to provide access to a measly 100 square feet—so much more than the median price of a home? Because they can be. And despite its clear powers under Section 201 and the *Expanded Interconnection* docket, the FCC essentially refuses to involve itself in any Section 251(c)(6) collocation pricing matters, preferring to leave such issues to the state commissions. And where state commissions fail to act to lower collocation prices, the Commission still does nothing.

The same is true for loop provisioning practices. The Commission has had to reassert in no fewer than four proceedings in the last four years that incumbent LECs are obligated to provide loops to requesting carriers for the provisioning of any

telecommunications service. Incumbent LECs have tried numerous tricks to avoid providing xDSL-capable loops to Covad. When finally forced to accept that they must provide xDSL-capable loops, incumbent LECs resort to delay and price-gouging techniques. In order to prevent competitive xDSL providers from stealing away customers from the incumbents' own retail xDSL services, incumbent LECs take weeks to deliver loops ordered by competitors, charge non-cost-based upfront charges to deter entry, and assess wildly disparate prices for "voice" and "data" loops, despite the fact that these are two names for the exact same piece of copper. Covad has asked the Commission to take enforcement action against a BOC for such anticompetitive behavior, and the Commission did nothing. Covad has asked the Commission to take the simple step of imposing a loop provisioning interval on incumbent LECs so they cannot wage the war of attrition by refusing to deliver a loop until the competive LEC's customer cancels and asks for service from the incumbent's retail arm, and the competitive industry is still waiting.[2] Rather than take concrete steps to prevent anticompetitive incumbent behavior, the Commission simply reasserts the underlying obligation to provide xDSL-capable loops in a reasonable and nondiscriminatory manner, and repeats the same mantra over and over again. Perhaps it will take the death of even more competitive LECs to convince the Commission that it needs to exercise its authority to actually adopt rules to implement the Act, rather than simply parroting the Act's language.[3]

[2] Covad asked the Commission to adopt loop provisioning intervals in 1998, over two years ago, in its comments to the Commission's first NPRM in this docket. *See* Comments of Covad Communications Company, filed Sept. 25, 1998, CC Docket No. 98-147.

[3] In its last order in this docket, the Commission adopted rules that set collocation provisioning intervals that incumbents could immediately avoid simply by seeking relief from state commissions, and that were in any event twice as long as the intervals then offered voluntarily by Qwest.

> *Let me see if I've got this straight: in order to be grounded, I've got to be crazy and I must be crazy to keep flying. But if I ask to be grounded, that means I'm not crazy any more and I have to keep flying.*
>
> *- Yossarian, Catch-22 (Joseph Heller)*

So now what? Unfortunately, the competitive LEC community will best be able to make a compelling argument that incumbent LECs are winning the war of attrition only after the competitive LEC industry has disappeared – a classic Catch-22. Should the Commission wish to await that day, it will have presided over the birth and death of competition in the local telecommunications market in four short years. Should the Commission desire to prevent such an occurrence, it must act swiftly and decisively to remove from the incumbents' arsenal of anticompetitive tools those implements that they have been permitted to use over and over in the last four years.

Two things are abundantly clear from the Commission's prior rulemaking efforts. First, leaving things to state-by-state implementation does not work. This simply affords incumbents the opportunity to force competitors to engage in fifty regulatory proceedings simultaneously, a process that is beyond the capability of any party but the incumbent itself. This policy also fails to recognize that state commissioners and their staffs face the same (and in many cases more severe) resource and information constraints that the Commission faces. As a result, a policy of undirected discretion to state-by-state implementation gives ILECs an advantage in the war of attrition and merely ensures that competition—like victory at the Battle of the Somme[4]—will be delayed or elusive for months or years and at tremendous cost.

[4] In the Battle of the Somme in 1916, the British sustained 57,420 casualties while gaining a mere 1.5 km on the first day. The battle lasted four months and took over 419,000 allied casualties.

Second, the Commission's enforcement mechanisms and processes are insufficient. The Commission has taken exactly one public enforcement action enforcing Section 251 of the 1996 Act since its passage, and even that action (addressing GTE's refusal to implement cageless collocation) took several months and resulted in a consent decree, with no admission of wrongdoing.[5] At the same time it was challenging the FCC's cageless collocation rules before the D.C. Circuit (an appeal that led to this remand), GTE was successfully denying cageless collocation to Covad and other competitive LECs for months after the FCC ordered it. This utter lack of respect for the legal impact of the Commission's rules served only to drive up CLEC costs and delay entry into GTE's territory. And what does GTE suffer as a result? A public flogging and a "voluntary contribution" to the United States Treasury that represents an insignificant fraction of Verizon's quarterly revenues and probably a tiny share of its litigation and regulatory budget for the year. The Commission must accept that it simply is not willing to take enforcement action against incumbent LECs in this arena and move on. Pretending that enforcement will force open the market while refusing to take any action is an empty promise of competition.

Addressing the Remand: Collocation Policy Considerations

You can't fight in here, this is the War Room!

-- President Merkin Muffley, Dr. Strangelove, or How I Learned to Stop Worrying and Love the Bomb, 1964

[5] Only public enforcement actions will provide sufficient deterrent effect to correct incumbent LEC misbehavior. Enforcement must also be swift – in the GTE case, if GTE's objective was to delay implementation of cageless collocation, then its pattern of deny and delay was ultimately vindicated.

Against this backdrop, the Commission has the opportunity to adopt collocation rules that *truly* address incumbent practices that serve merely to drive up prices. This is more than a "mop-up" remand proceeding – it is an opportunity to *get the rules right*. It is an opportunity not only to remedy current incumbent abuses, but also to write self-enforcing rules and enforcement principles that will remedy future abuses. In addition, the Commission must act quickly to adopt concrete loop and linesharing UNE provisioning intervals as requested by ALTS in its recent petition. The legacy of this Commission must not be the death of the competitive LEC industry.

Wolves in CLEC clothing

In particular, the Commission should take a hard look at the recent "reformed" U S WEST – now known as Qwest – and its new and improved collocation practices.[6] Some at the Commission will no doubt recall that this is not the first time that U S WEST has announced a major shift in policy in the days leading up to an important Commission rulemaking. Indeed, the last time the Commission undertook to revamp its collocation rules, adopting cageless collocation rules, U S WEST stole the show in the comment period by announcing that it intended to offer cageless collocation voluntarily. Covad was the first CLEC to enter into a cageless physical collocation arrangement with U S WEST (in the State of Washington), but that "breakthrough" was only achieved as a result of a motion to compel filed by Covad for discovery of evidence that U S WEST in the end did not want to produce.[7] The Commission should recognize the importance of

[6] "Qwest Communications Announces Landmark Initiatives to Open Local Communications Markets," Press Release, Sept. 19, 2000 (available at http://www.qwest.com).

[7] Subsequent to agreeing with U S WEST regarding cageless collocation—an achievement lauded by U S WEST representatives before Congress and the FCC—Covad ordered several cageless arrangements in the State of Washington. However, U S WEST—despite clear contract language and its clear statements to

Qwest's about-face, but should never forget that the very same company has made – and susbsequently ignored -- such promises before in an attempt to head off federal rules.

The absence of procompetitive collocation rules has an immediate and predictable harmful impact on consumer choice.

The importance of collocation to the process of competitive entry must not be underestimated. The current cost of physical collocation is the *single largest one-time, sole-source cost* Covad has. Indeed, it is not uncommon for a simple, 10'x10' collocation cage to cost *more* than the sophisticated and advanced equipment that Covad places in that cage. In addition, removal of restrictions upon use of collocated equipment would allow Covad to build more efficient and fault-tolerant networks capable of innovative evolution at much lower costs because distributing packet-switching functionality to the periphery of the network reduces the need to build and interconnect centralized (and expensive) routing facilities in each metropolitan area.

ILEC collocation practices severely limit the number of people who will receive competitive service. For instance, Covad originally applied for collocation in Bell Atlantic's 1700 14th Street, N.W. central office in the District of Columbia—the central office that serves Howard University, the Whitman-Walker Clinic, and Children's Hospital. To Covad's knowledge, it would have been the *first* collocating CLEC to offer competitive service to those institutions and the citizens that live in the surrounding neighborhoods. However, Bell Atlantic asked Covad to pay $98,750 to construct a segregated collocation room to accommodate Covad's application for only 100 square

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the FCC that it had reformed its collocation practices to accommodate Covad's interests—unilaterally reneged on its interconnection agreement and *pre-emptively sued* Covad with regard to the rates, terms and charges for cageless physical collocation in those offices.

feet of space. After considering this expense, Covad reluctantly declined to pursue collocation in that office at that time.[8] The net result was not only a lost business opportunity for Covad, but a significant potential loss to those institutions and lost economic development opportunities for the District of Columbia and its citizens – all because of Bell Atlantic's retrograde, anti-competitive, and usurious physical collocation policies.

Timeliness of Incumbent LEC adherence to the Commission's rules must not be left to chance.

When the Commission issues rules in this proceeding, it must ensure that those rules provide self-enforcement mechanisms that ensure timely compliance. This is because incumbent LECs have shown a near-universal willingness to delay implementation of other pro-competitive policies as much as possible.

For example, in November 1999, the Commission ordered incumbent LECs to provide linesharing as a UNE to requesting carriers. Of particular note was the Commission's determination that incumbent LECs were leveraging their monopolies into the DSL space by denying linesharing to competitors. The Commission thus called for rapid implementation of linesharing to end that monopoly practice. The Commission required incumbent LECs to be operationally ready to provide linesharing UNEs by June 6, 2000, six months after the adoption of the linesharing order. And where are we today, more than four months after the Commission's deadline? In Verizon's recently filed section 271 application for long distance authority in Massachusetts, Verizon conceded

[8] Covad was also forced to decline to pursue its collocation application for Bell Atlantic's Georgia Avenue central office in DC, where Bell Atlantic has sought to require Covad to build a *2100 square foot room* (at an expense of over $100,000) to accommodate Covad's application for 100 square feet of space.

that as of September 14, 2000, it had completed wiring only 70% of the central offices in Massachusetts that Covad had requested for linesharing capability.[9] In addition, linesharing OSS is not yet in place, Verizon hasn't provisioned a single linesharing order for Covad in Massachusetts, and Verizon is not yet operationally ready to implement linesharing. Covad has provided this information to the Commission, but no enforcement action has been taken.[10]

Moral of the story? Even deadlines, without something to back them up, aren't enough to ensure incumbent LEC compliance. Therefore, the Commission should, if and when it issues modified collocation rules in this proceeding, order all ILECs to come into full compliance on the effective date of those rules. The Commission should specifically state that ILECs may not delay the offering of any alternative collocation arrangements required by the Order while the ILEC prepares a generic "tariff" for that service. The Commission should make the same decision regarding similar clauses that may deal with restrictions on collocation equipment. In addition, the Commission should also order ILECs to immediately, upon release of the Order and at the request of a CLEC, renegotiate those agreements to incorporate any and all changes in applicable law that result from that Order. The Commission should also clearly state that the failure of an ILEC to agree to amend those existing agreements to incorporate the changes resulting from the Order within thirty days shall be deemed *prima facie* evidence of bad faith negotiation practices by the ILEC and a violation of a Commission order. The new rules

[9] Application by Verizon New England for Authorization to Provide In-Region, InterLATA Services in Massachusetts, CC Docket No. 00-176, filed Sept. 22, 2000, Joint Declaration of Paul A. Lacouture and Virginia P. Ruesterholz, para. 127.

[10] Indeed, the Commission has taken only one enforcement action pursuant to the market-opening provisions of section 251 in the year since the Enforcement Bureau was created.

should provide for an expedited enforcement procedure, complete with clear levels of fines and forfeitures for which incumbent LECs will be liable for each collocation rule breach and for each day that compliance is delayed.

Definition of "Necessary" and Multifunction Equipment

The Commission's task in the "remand" portion of this proceeding is relatively simple – the D.C. Circuit has clearly confirmed the Commission's authority to establish collocation rules; the Commission is simply charged with explaining more clearly how some of those rules relate to the statutory language of the Act and section 251(c)(6).

In the *Advanced Services First Report and Order*, the Commission required incumbent LECs to permit collocation of any equipment that is "used or useful" for either interconnection or access to unbundled network elements, regardless of whether such equipment includes a switching functionality, provides enhanced services capabilities, or offers other functionalities.[11] In *GTE v. FCC*, the D.C. Circuit determined that the Commission's interpretation of "necessary" pursuant to section 251(c)(6) "seem[ed] overly broad and disconnected from [that provision's] statutory purpose."[12] In remanding to the Commission, the court made clear that the Commission's task was not to rewrite the substance of the collocation rules it adopted in March of 1999, but rather to better

[11] *Advanced Services First Report and Order*, 14 FCC Rcd at 4776, ¶ 28. Incidentally, the "used and useful" definition was first put in place in the *First Local Competition Report and Order*, released in August 1996. Incumbent LECs failed to challenge that provision as it applied to collocation in their otherwise wide-ranging appeal of that order before the Eighth Circuit. It was only *after* CLECs like Covad actually began to seek collocation of this equipment on a broad nationwide scale that incumbents seized upon this issue in order to place a roadblock on entry.

[12] *GTE v. FCC*, 205 F.3d at 422.

explain the legal basis for its decisions and explain how its rules remained "within the limits of 'the ordinary and fair meaning'" of section 251(c)(6).[13]

More importantly, the court stated that it did not vacate the *Advanced Services First Report and Order* to the extent it requires that an incumbent LEC permit physical collocation of equipment "that is directly related to and thus necessary, required, or indispensable to 'interconnection or access to unbundled network elements.'" This statement does not mean that the court required any particular definition of "necessary" upon remand – indeed, it made quite clear that it was for the Commission to determine an appropriate interpretation of that statutory language. Rather, the court was distinguishing those rules it felt it had to vacate in the absence of a clear Commission interpretation of "necessary" and those it felt were not necessary to vacate. The Commission should take note, however, of the court's use of the phrase "directly related to and thus necessary" as a potential starting point for interpreting the term "necessary."

In the *Advanced Services First Report and Order*, the Commission concluded that section 251(c)(6) required incumbent LECs to permit collocation of such equipment as DSLAMs, routers, optical terminating equipment, asynchronous transfer mode (ATM) multiplexers, and remote switching modules. The Commission also concluded that an incumbent LEC must not limit a competitor's ability to use all the features, functions, and capabilities of collocated equipment, including, but not limited to, switching and routing features and functions. Those two decisions are at issue in this proceeding not because the D.C. Circuit thought they fell beyond the Commission's authority, nor because the

[13] *Id.* (*quoting AT&T v. Iowa Util. Bd.*, 525 U.S. at 366).

D.C. Circuit thought the substance of those decisions was incorrect.[14] At issue in this remand proceeding is the explanation the Commission offered for its interpretation of the word "necessary" in section 251(c)(6), not the rules the Commission promulgated as a result of that interpretation. All the D.C. Circuit has instructed is that the Commission explain itself better.

In the Collocation NPRM, the Commission invited comment on whether it must, for section 251(c)(6) purposes, adopt a definition similar to the definition of "necessary" it uses for section 251(d)(2)(A) purposes, which relate to access to proprietary network elements.[15] In requesting comment, the Commission noted that "'[i]dentical words may have different meanings where the subject-matter to which the words refer is not the same in the several places where they are used, or the conditions are different.'"[16]

The Commission must avoid falling into the "necessary" trap that has been set by the incumbents. Incumbent LECs are salivating at this proceeding, hoping the Commission will trip over itself trying to come up with a workable definition of "necessary" that leads not to competition, but another successful court challenge to the Commission's rules. But the "necessary" trap is easy to avoid. The Commission must simply step back and look at the entirety of section 251(c)(6), not just one word.

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[14] In fact, the Commission is not precluded from reaching the same, or even expanding upon, those prior determinations.

[15] In the *UNE Remand Proceeding*, the Commission concluded that a proprietary network element is "necessary" within the meaning of section 251(d)(2)(A) of the Communications Act "if, taking into consideration the availability of alternative elements outside the incumbent's network, including self-provisioning by a requesting carrier or acquiring an alternative from a third-party supplier, lack of access to that element would, as a practical, economic, and operational matter, *preclude* a requesting carrier from providing the services it seeks to offer." *UNE Remand Order*, 15 FCC Rcd at 3721, ¶ 44 (emphasis in original).

[16] *U S WEST Communications, Inc. v. FCC*, 177 F.3d 1057, 1060 (D.C. Cir. 1999), *cert. denied*, 120 S.Ct. 1240 (2000) (*quoting Weaver v. USIA*, 87 F.3d 1429, 1437 (D.C. Cir. 1996)).

Section 251(c)(6) provides that incumbent LECs must permit collocation of equipment that is "necessary for interconnection or access to unbundled network elements." But that is not the only test for what equipment incumbent LECs must permit in central offices. The remaining language in section 251(c)(6) specifies that an incumbent LEC must provide any required physical collocation "on rates, terms, and conditions that are just, reasonable, and nondiscriminatory." Thus, once an obligation is imposed on incumbent LECs to permit collocation of certain classes of equipment, the terms and conditions that the incumbent LECs impose on such collocation must be just, reasonable, and nondiscriminatory. As a result, the term "necessary" is qualified by the requirement that any rates, terms and conditions placed on collocation must also be just, reasonable and nondiscriminatory.

What incumbent LECs want to do in this proceeding is implement unjust, unreasonable and discriminatory collocation restrictions on competitive LECs under the guise of the term "necessary" — they want to limit the competitive LEC's ability to utilize all functions of multifunctional equipment collocated in a central office, even if those restrictions do not make commercial sense, would raise costs of new entrants, and even if the incumbent LEC itself performs those same functions in those very same central offices.

Indeed, incumbent LECs have already conceded that the equipment at issue in this proceeding *can* be collocated pursuant to section 251(c)(6) – they only dispute certain *uses* of that equipment that competitive LECs wish to undertake, even if incumbents do not place such restrictions on their own central office activities. This is quite an interesting position regarding multifunction equipment – because incumbent LECs

concede that multifunction equipment consists of certain functionalities that, if present in a standalone piece of equipment, would be permitted collocation space in a central office. Incumbents seek to argue that the presence of other functionalities in that equipment "taints" the equipment and renders it not "necessary" for collocation. This argument is logically inconsistent. The adjective "necessary" does not exist in a vacuum in section 251(c)(6), because once the equipment passes the "necessary" test, incumbent LECs are only permitted by the language of section 251(c)(6) to impose "just, reasonable, and nondiscriminatory" terms and conditions on the collocation of such equipment.

It is important to note that the D.C. Circuit did not find fault with the Commission's multifunctional equipment rationale; rather, it sought from the Commission a limiting principle that the Commission's counsel could not provide at oral argument. That limiting principle is already in place, even though not well explained to the court. Equipment that is "multifunctional" – simply put, it performs multiple functions – can only be collocated if one of those functions is necessary for access to UNEs or interconnection. DSLAMS, routers, multiplexers, and other similar equipment, as the Commission has found in the past, are "necessary" because of the need to access UNEs, and interconnect for the exchange of telecommunications traffic, at a point as close to the loop termination as possible. Indeed, no incumbent LEC disputes the need to collocate such equipment in the central office. The "necessary" prong thus satisfied, it is left for the Commission to conclude whether excluding equipment from the central office that would otherwise be granted collocation space, simply because such equipment

possesses other functionalities, is a just, reasonable, and nondiscriminatory condition for an incumbent LEC to impose. Covad submits that it is not.[17]

Rather than focus on the nondiscrimination requirement of 251(c)(6), which necessarily weds competitive LECs to the incumbents' own failure to innovate, the Commission should determine that excluding equipment from collocation space merely because it offers multiple functionalities is an unjust and unreasonable condition. As a policy matter, the Commission's decision in such a manner will promote the immediate and rapid development and deployment of innovative telecommunications equipment. It is a simple equation for an equipment manufacturer – if multifunction equipment cannot be collocated, there is no market for it, and it will not be built. Consumers will benefit greatly from such innovation, as it will permit carriers to improve their service offerings with a variety of services that they would otherwise be unable to provide. For example, Covad could expand its DSL service offerings to include enhanced functionalities that provide broadband services to members of the disabilities community, but only if Covad can integrate such functionality into its existing equipment without ever-present risk of an incumbent LEC throwing the equipment out of the central office. There is no question that multifunctional equipment provides carriers and consumers with access to a wider variety of service offerings – such variety is inherent in the very definition of such equipment. Indeed, the D.C. Circuit in its opinion recognized the vital importance of the Congressional goal of encouraging deployment of such equipment, stating that section 251(c)(6) "seeks to ensure competition in areas of advanced technology in

[17] The "limiting principle" of this rule is that entirely extraneous equipment that possesses no interconnection or access function – such as a printer that prints out payroll checks – cannot be collocated. However, the Commission can clearly state that the just, reasonable and nondiscrimination principle

telecommunications."[18] Congress could not have intended to promote competition by preventing competitive LECs from deploying the most efficient and technologically advanced equipment in their networks, thus denying consumers the opportunity to benefit from the best serivces competition can offer.

Indeed, denying collocation space to multifunctional equipment will actually impose greater costs on the incumbents themselves – a truly unreasonable result. Rather than configuring its network to interconnect with competitors in the central office, presumably with one multifunctional piece of equipment, the incumbent LEC that denies collocation of such equipment will be forced to reconfigure its network to interconnect at multiple points in the incumbent and competitive carriers' networks. Because the incumbent is legally obligated, pursuant to section 251(c)(2) of the Act, to interconnect with competitive LECs at any technically feasible point, the incumbent cannot refuse such interconnection wherever demanded by the competitive LEC. As a result, it would seem logical that incumbent LECs would seek to minimize their interconnection costs by permitting competitors to collocate in the incumbents' own central offices, where the incumbent stands ready to interconnect, easily and cheaply, equipment that must be integrated. Instead, the incumbent paradoxically seeks to drive up its own costs by forcing competitive LECs to separate their equipment into multiple functions and place that equipment in multiple locations. The only rational explanation for such a seemingly counterproductive decision is that incumbent LECs would rather stymie new entry and preserve their market power than configure their networks in an efficient manner. While

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requires that once a piece of equipment possesses a "necessary" function, the incumbent cannot restrict the uses of that equipment by the competitive LEC.

[18] *GTE v. FCC*, 205 F.3d at 421.

this is probably a profit-maximizing and rational decision when made by an incumbent with market power, the Commission has an obligation under Title II to protect the public from this unreasonable and unfettered abuse of market power.

As a legal matter, the Commission is well equipped to bar incumbent LECs from denying collocation space to multifunctional equipment that the same incumbents concede would be permissible if certain of those functions were eliminated or disabled. Incumbent LECs can raise only two possible challenges to such a rule: (1) it is an unlawful taking[19], and (2) the Commission risks exhausting central office space. As to (1), the Commission has been forced to undertake the takings analysis on numerous occasions (thanks usually to U S WEST) and is capable of doing so here as well. An unlawful taking occurs only in the absence of either a valid legal obligation or just compensation. There can be no argument that the legal obligation here is valid; indeed, the incumbent LECs all concede that they would be obligated to permit collocation of the equipment in question if it were single-function equipment. The only question, then, is whether the presence of other functionality in the equipment can "spoil" the legal obligation. The answer must be no, because Congress would have spoken to such a scenario by expressly limiting the collocation obligation to equipment that served only the functions delineated in the statute and no others. If the multi-functional equipment is necessary for access to UNEs or interconnection, as all parties agree that the equipment in question here is, the inquiry is at an end. Moreover, there can be no argument that just compensation is being paid to the incumbent LECs, because competitors are paying incumbents for the space occupied by such equipment. Thus, the takings argument fails.

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[19] *See GTE v. FCC*, 205 F.3d at 421.

Second, as to the policy argument about exhausting central office space, it is quite fascinating to hear incumbent LECs concerned about the equitable distribution of central office space, particularly as those same incumbents have spent the last four years misleading regulators and CLECs about central office availability and denying competitive LEC access until the Commission and state commissions beat down central office doors. That contradiction aside, the Commission can alleviate any concerns about space exhaustion by maintaining the first-come, first-served space allocation policy it has put in place, and further by adopting Covad's rack-mountable equipment size limitation (set out below) as a limiting principle. Moreover, the Commission should recognize that central office space is made available pursuant to Congressional fiat for competitive LECs to use in order to offer service to consumers, and competitors who purchase space in a central office should be able to fill that space with equipment that will meet consumer demand and advance important statutory objectives advancing Congress's intent to promote such innovation.[20] Perhaps most importantly, though, the denial of multifunctional equipment will actually decrease, rather than increase, available central office space. If denied permission to collocate multifunctional equipment, competitive LECs will be forced to collocate multiple independent pieces of equipment, rather than one integrated piece of equipment, thus turning the incumbents' space exhaustion argument on its head.

The Commission should also explain how the definition of "necessary" it adopts pursuant to section 251(c)(6) in this proceeding relates to the definition it adopted in the

[20] *See, e.g.*, 47 U.S.C. § 151 (establishing statutory purpose of "mak[ing] available, so far as possible, . . . a rapid, efficient, Nation-wide . . . wire and radio communication service . . ."); section 706 of the 1996 Act (instructing the Commission to encourage the rapid deployment of "advanced telecommunications capability to all Americans).

UNE Remand Order.[21] Indeed, the Commission should pointedly conclude that its interpretation of necessary in section 251(d)(2)(A) and section 251(c)(6), although not required to be consistent, does in fact reflect a consistent interpretation of Congressional intent. Such a conclusion should immunize the Commission's conclusion from further judicial challenge, given the incumbent LECs' advocacy in favor of a consistent interpretation of the term "necessary" among different statutory provisions. In basing its interpretation of "necessary" on the record developed in this proceeding, the Commission will no doubt conclude that Congress intended to ensure that competitive LECs would have unfettered access to incumbent LEC central offices in order to offer innovative telecommunications services to consumers. Had that not been Congress' intent, it would have left the entrenched monopolies in place for another one hundred years. Congress recognized that competitive LECs must have access to central office space for certain equipment; namely, equipment that competitive LECs use for access to UNEs or for interconnection. For a DSL provider like Covad, UNE loops must be accessed at the central office, because DSL services operate on the copper wires that end at the office. As a result, collocation in incumbent LEC central offices of the equipment Covad uses to access UNE loops is clearly "necessary" – because if that access were to take place at another location, the copper loops would have to be extended, and more complex and technically limiting cross connects and interconnection would be necessary. Those activities would seriously degrade the variety and quality of service that Covad could offer. It's as simple as that.

[21] The Commission's failure to explain the different interpretations of necessary in the *Cageless Collocation Order* and the *UNE Remand Order* is what brought about the remand on that issue in this proceeding.

The Commission has other sources of power regarding physical collocation because of the historical relationship between the *Expanded Interconnection* proceeding and the ultimate passage of Section 251(c)(6). Because some form of federally-required collocation practices existed prior to passage of Section 251(c)(6), many interconnection agreements explicitly refer to the ILEC's FCC Tariff No. 1 *in lieu* of placing detailed physical or virtual collocation terms and conditions in those agreements. As a result, the Commission has tremendous power over the actual physical collocation offerings that ILECs provide to CLECs solely by virtue of these incorporations-by-reference. In addition, the *Expanded Interconnection* physical collocation rules provide a powerful means of demonstrating "technical feasibility" of a particular form of physical collocation.[22] Moreover, those rules can be of guidance in determining appropriate delivery deadlines and appropriate costing methodologies for all forms of collocation. In the past, Covad has requested that the Commission utilize its section 201 authority to help drive swift implementation of its March 1999 collocation rules – a request that was not heeded, to the detriment of competitive entry and consumer choice. In this proceeding, the Commission should reassert its *Expanded Interconnection* tariff authority and require incumbent LECs to file *Expanded Interconnection* tariffs that conform with the Commission's section 251(c)(6) rules.

Elimination of switching prohibition

In the March 1999 *Advanced Services Order*, the Commission concluded that section 251(c)(6) does not require that an incumbent LEC permit the collocation of

[22] Indeed, in rules implemented in 1996 through the *First Local Competition Report and Order*, the Commission pointed to the *Expanded Interconnection* tariffs as the "proxy" for collocation rates, terms and conditions. *See* 47 C.F.R. § 51.513(c)(6).

switching equipment or equipment used to provide enhanced services.[23] This was not a new conclusion, but rather a simple restatement of the same conclusion the Commission made in the *First Local Competition Report and Order* in August of 1996. Covad strongly supports the Commission's proposals to eliminate unnecessary restrictions on collocated equipment. Collocation of packet-switching and network management equipment in end-offices would make CLEC DSL networks much more efficient, reliable and cost-effective.[24] By distributing switching capability and functions to the periphery of the local network, the network will, like the Internet backbone, be able to "route around" congested transport links or trouble spots. As a result, transport bandwidth would be maximized and the outage of one of several packet-switches would not cause a general network failure. Prohibiting collocation of packet-switches and network management equipment in central offices essentially forces the CLEC's DSL network into a "star" configuration, in which all DSL traffic is routed from each office to one regional data center. Construction of this center (and procuring the high-bandwidth interoffice transport to the center) would be very expensive and inefficient.

Over the past few years, in the world of data communications, the terms "switching", "routing", and "multiplexing" functions have become distinctions without a difference. However, the Commission's current rules allow ILECs to engage in endless, case-by-case litigation of the "capabilities" or "use" of a particular piece of equipment in every state and over virtually every product model number. The current rule is an

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[23] *Local Competition First Report and Order*. at 15794, ¶ 581.

[24] Such a conclusion is also important as the Commission adopts rules related to collocation and service provisioning through remote terminals. As Covad has advocated in other proceedings, the Commission should adopt its "Project Pronto" ruling as a nationwide incumbent LEC requirement. Specifically, the Commission should conclude that incumbent LECs are required, pursuant to section 251(c)(3) of the Act, to provide the "broadband UNE" delineated in the Commission's recent Project Pronto order.

historical accident, a relic of the *Expanded Interconnection* docket where the Commission was explicitly not promoting the deployment of competitive, switched local services (which was actually illegal in some states at that time). The purpose behind Section 706 is precisely the opposite—indeed, Section 706(c)(1) *explicitly defines* "advanced telecommunications capability" as including "switched" functionality.

Therefore, Covad supports the Commission's proposal to remove these restrictions upon collocated equipment. The hardest question, of course, is what is the "limiting standard[s]" the Commission should employ to determine which functions should not be permitted in collocated equipment – a question the D.C. Circuit wants answered.[25] As discussed above, Covad has a proposed solution for such a standard, one that should end the incumbent LEC games and take the Commission one step closer to the competition it seeks to promote. Covad would like to remind the Commission, however, that whatever rule changes it drafts *must* be crafted so as to prevent ILECs from engaging in wasteful and costly case-by-case litigation of these issues.[26]

Covad does not believe that it makes sense to differentiate among technologies any more—the artificial difference between "switching" and "multiplexing" or "cross-connect" functions that got us into this mess in the first place.[27] Creating new distinctions

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[25] *See GTE v. FCC*, 205 F.3d at 425 (suggesting that equipment enhancements that might facilitate payroll processing or data collection are not necessary for interconnection or access to unbundled network elements).

[26] Currently, many ILECs will review a CLEC's collocated equipment *prior to turning up power* to that equipment. As a result, if the Commission drafts rules that give the ILEC an "out", the ILEC may simply refuse to turn up power to a collocation node until it is "satisfied" that the equipment comports with its own implementation of the law. The CLEC would then be forced into the position of having to fight any ILEC before it can even offer service to customers.

[27] After all, what is a DSLAM? The only thing that differentiates a DSLAM from a packet switch is the fact that DSLAMs are generally incapable of routing subscriber information between two subscribers served through the same DSLAM. A switch, on the other hand, can direct traffic to a subscriber served through the same switch. Equipment manufacturers are beginning to deploy DSLAMs with switch-like

will not solve the problem. Instead, the restriction on switching equipment should be removed in its entirety. As a result, Covad's proposed rule is centered on "rack-mountable" equipment that the CLEC determines to possess at least one "necessary" function for interconnection or accessing UNEs.[28] As discussed above, any further restriction on the use of that equipment would be an "unjust and unreasonable" restriction of CLEC collocation rights and would be patently inconsistent with the *whole* language of section 251(c)(6). Rack-mountable equipment simply does not take up excessive space, thus dispelling incumbent arguments that removal of this restriction will exhaust space in central offices. "Rack-mountable" is an objective standard that can easily be determined simply by looking at the equipment—there would be no need to go "inside the black box" and utilize a legal process to determine whether a "switch" is hidden in there or not.

CLEC to CLEC cross-connects

In the *Local Competition First Report and Order*, the Commission permitted competitive LECs to connect their collocated equipment to the collocated equipment of another carrier within the same incumbent LEC premises. Such CLEC-to-CLEC cross connects were permitted so long as each collocator's equipment was used for interconnection with the incumbent or access to the incumbent's unbundled network elements.[29] In the *Advanced Services First Report and Order*, the Commission amended

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capabilities, giving rise to the question as to how the Commission can maintain a distinction between packet switches and non-switches.

[28] Collocation of equipment that would not fit on a standard rack or in a telecommunications equipment bay is not common and generally is done on a case-by-case basis, as such equipment often tends to require special power and cabling arrangements from the ILEC. In the context of a CLEC wishing to collocate a large, 5ESS switch, it is appropriate to consider the impact upon collocation space exhaustion.

[29] *Local Competition First Report and Order*. at 15801-02, ¶ 594.

this rule to require incumbent LECs to permit collocating carriers to construct their own cross-connect facilities between collocated equipment located on the incumbent's premises, subject only to the same reasonable safety requirements the incumbent places on its own facilities.[30]

In *GTE v. FCC*, the D.C. Circuit vacated and remanded the cross-connects rule adopted in the *Advanced Services First Report and Order*.[31] The court stated that "requiring [incumbent] LECs to allow collocating competitors to interconnect their equipment with other collocating carriers . . . imposes an obligation on [incumbent] LECs that has no apparent basis in the statute."[32] The statute to which the court referred, section 251(c)(6), is but one statutory basis for the Commission's rule permitting CLEC-to-CLEC cross connects. As with certain other Commission rules remanded by the court, the Commission is not required to alter its rule in any way, but rather to better explain the statutory basis for the rule.

Section 251(c)(6) requires an incumbent LEC to permit, pursuant to "just reasonable and nondiscriminatory" terms and conditions, collocation of equipment "necessary for interconnection or access to unbundled network elements at the premises of the local exchange carrier."[33] At issue is not whether the collocation of particular equipment is permissible, but rather whether an incumbent LEC can deny a collocating carrier the option of interconnecting with another collocating carrier within the central

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30 *Advanced Services First Report and Order*, 14 FCC Rcd at 4779-80, ¶ 33.

31 *GTE v. FCC*, 205 F.3d at 423-24 (vacating and remanding "offending portions" of the *Advanced Services First Report and Order*).

32 *Id. at* 423.

33 47 U.S.C. § 251(c)(6).

office. As discussed above, the Commission must avoid falling into the incumbent LEC "necessary" trap – the "necessary" prong of section 251(c)(6) has already been satisfied, and the equipment has already been collocated. The question now is simply whether an incumbent LEC imposes "just, reasonable and nondiscriminatory" terms and conditions on that collocating carrier when it denies the carrier the ability to interconnect with another carrier in the central office. Once a piece of equipment meets the "necessary" test, it is clear that the incumbent *cannot* unjustly, unreasonably or discriminatorily restrict the *use* of that equipment – and the manner, nature and methods of cross-connecting this equipment are clearly the most critical attributes of how such equipment is used.

Section 251(a)(1) requires each telecommunications carrier "to interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers . . . ."[34] Section 251(c)(2) requires an incumbent LEC "to provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier's network . . . for the transmission and routing of telephone exchange service and exchange access . . . ."[35] Each statutory provision imposes interconnection obligations – and rights – on carriers. Congress adopted two different statutory provisions related to interconnection, imposing different obligations on carriers generally and on incumbent LECs specifically.

Again, the issue of whether particular equipment can be collocated has been settled by the time the issue of CLEC-to-CLEC cross connects arises. Congress did not

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[34] 47 U.S.C. § 251(a)(1). Interconnection is direct when a carrier's facilities or equipment is attached to another carrier's facilities or equipment. Interconnection is indirect when the attachment occurs through the facilities or equipment of an additional carrier or carriers.

limit the ability of carriers to utilize their collocated equipment only for interconnection with the incumbent. This is obvious from the plain language of section 251(c)(6) because Congress utilized the term "interconnection," rather than specify "interconnection pursuant to section 251(c)(2)" or "interconnection with the incumbent's network." Congress intended to require incumbents to permit carriers to utilize their collocated equipment for interconnection pursuant to either 251(a)(1) or 251(c)(2) – in other words, with either the incumbent or another collocating carrier. Is it therefore a just, reasonable and nondiscriminatory condition for an incumbent LEC to deny a carrier the ability to interconnect with another collocating carrier in the central office? Clearly not. Indeed, the Commission must conclude that a collocating carrier is permitted, pursuant to section 251(c)(6), to interconnect with another collocating carrier, in the central office, by cross-connect or any other technically feasible means of that carrier's choice.

As a policy matter, this interpretation of the Act also advances the important goals of Congress in enacting the 1996 Act. As evidenced by section 706 and other provisions of the Act, Congress intended to grant consumers the widest possible variety of innovative telecommunications services at the lowest possible prices. In support of that goal, Congress granted competitive carriers the opportunity to minimize their costs by collocating equipment in central offices, and by interconnecting with the incumbent LEC and other competitive LECs in those offices. By permitting such interconnection, Congress sought to minimize the costs competing carriers would suffer in offering service to consumers, given such carriers a full and fair opportunity to compete with the incumbent.

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[35] 47 U.S.C. § 251(c)(2).

For example, Covad purchases interoffice fiber capacity from incumbent LECs in certain central offices, and from competitive LECs in other central offices. Covad must purchase fiber cross-connect capability from the fiber carrier in order to interconnect with that carrier. In the case of the incumbent, such interconnection takes place in the central office, and the DSL traffic generated by Covad's end users is immediately multiplexed and transported on to the incumbent's fiber. In the case of a competitive fiber provider, like XO Communications, Covad must have the ability to cross connect to XO's fiber facilities within the central office. Were that not possible, Covad would have to send its customers' DSL traffic out of the office to some third party collocation facility, interconnect with XO, and transport the traffic back to the central office to be placed on interoffice fiber facilities.[36] Indeed, in certain cases, Covad's customers generate traffic that is bound for another DSL user served out of the same central office, making the roundtrip even more nonsensical. Even if the traffic is bound for another central office, the costs of purchasing additional transport to the third party collocation site and interconnecting outside of the central office are enormous. In addition, Covad would suffer service quality degradation because of the additional distance, the additional facilities, and the additional equipment necessary for such an arrangement. In sum, interconnecting outside of the central office is more expensive, and more service degrading, than doing so inside the office. The incumbent LECs, of course, recognize these facts, and are seeking to avoid their clear statutory obligations in an effort to drive up competitive LEC costs and degrade their services. The Commission must therefore

[36] The majority of the cost of a long haul circuit from, for example, a central office to an ISP POP located three states away, is the access portion of that circuit. Covad can avoid having to purchase such access if it can simply cross connect to fiber facilities in the central office. Such an ability saves Covad upwards of 50% of the cost of long haul circuits.

conclude that cross connects of the competitive LEC's choosing (i.e. fiber or metallic) are permissible.

The Commission can also conclude that cross-connects between collocators are "necessary for interconnection or access to unbundled network elements" within the meaning of section 251(c)(6). Congress clearly intended "interconnection" as used in section 251(c)(6) to refer to the interconnection of two collocators' equipment or networks, as well as interconnection with the incumbent's network. Had it intended differently, it would have provided so, because in other provisions of section 251, Congress clearly knew how to distinguish between "interconnection" with incumbent LECs (section 251(c)(2)) and interconnection with all common carriers, including competitive carriers (provided for in section 251(a)). The Commission must therefore conclude that section 251(c)(6) encompasses all forms of "interconnection," and not just "interconnection with the incumbent LEC". Collocation must be for "interconnection" by a competitive LEC of the type and quality of its choosing; that is, both direct interconnection (i.e., direct physical links between the collocators' facilities or equipment) and indirect interconnection (i.e., links through the incumbent's facilities or equipment).[37]

The Commission should further conclude that section 251(c)(6) authorizes the Commission to require that incumbent LECs permit telecommunications carriers to collocate for the sole purpose of interconnecting with other collocating carriers through

[37] *See* 47 U.S.C. § 251(a)(1) (requiring "each telecommunications carrier . . . to interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers . . ."). As discussed above, the Commission has ample authority pursuant to its *Expanded Interconnection* line of decisions to impose collocation obligations on incumbent LECs. In addition, the Commission has authority, pursuant to section 201(a) of the Act, to take the steps necessary to ensure that carriers are able to interconnect with one another by adopting such a rule.

the use of cross-connects. Such an interpretation is consistent with the statutory language and would clearly further Congress's intent to permit collocation for interconnection with either the incumbent or other collocating carriers. In addition, the terms and conditions of such collocation, such as where in the central office it takes place, at what point in the central office the collocating carrier "enters" – such as particular manholes, points of entry, and the like – are to be left to the discretion of the competitive LEC, not the incumbent, subject only to questions of technical feasibility. The Act imposes no limitations on the ability of collocating carriers to "interconnect" with one other, and the incumbent LEC should not be permitted to deny any form of such interconnection where Congress did not so intend.

Finally, the Commission must require, as it did in the *Advanced Services First Report and Order* and for the same reasons cited therein, that an incumbent LEC permit collocators to construct their own cross connections as opposed to obtaining them from the incumbent.

Segregation of Equipment

In the *Advanced Services First Report and Order*, the Commission required incumbent LECs to give competitors the option of collocating equipment in any unused space within the incumbent's premises, to the extent technically feasible.[38] The Commission also precluded an incumbent LEC from requiring competitors to collocate in a room or isolated space separate from the incumbent's own equipment.[39]

[38] *Advanced Services First Report and Order*, 14 FCC Rcd at 4784-85, ¶ 42.

[39] *Id.*

In *GTE v. FCC*, the D.C. Circuit determined that the Commission had not adequately justified the rules regarding allocation of central office space. The court stated that those rules "appear[ed] to favor the [incumbent] LECs' competitors in ways that exceed what is 'necessary' to achieve reasonable 'physical collocation' and in ways that may result in unnecessary takings of [incumbent] LEC property."[40] The court made clear, however, that on remand the Commission could simply "refine its regulatory requirements to tie the rules to the statutory standard, which only mandates physical collocation as 'necessary for interconnection or access to unbundled network elements at the premises of the local exchange carrier.'"[41]

The Commission's rules preventing incumbent LECs from unilaterally determining which space in a central office is available for competitive LEC collocation are perhaps the most important tools for driving down collocation costs and increasing available collocation space. Space assignment policies, if left to the incumbents, result in no-space central offices and multi-hundred thousand dollar collocation construction charges. The Commission should use the record developed in this proceeding, and in its prior rulemaking in this docket, to do a better job explaining to the court how important its procompetitive collocation rules are to the future of competition.

At the most basic level, the statutory obligation to provide collocation pursuant to just, reasonable, and nondiscriminatory rates, terms and conditions obligates incumbent LECs to provide the most inexpensive and the most timely provisioned collocation space possible. Unfortunately, left to their own devices the incumbent LECs do not follow that

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40 *GTE v. FCC, 205 F.3d* at 426.

41 *Id.* (*quoting* 47 U.S.C. § 251(c)(6)).

statutory mandate. The Commission, of course, recognizes this, and its rules regarding space selection and prices are designed to prevent the incumbent, which has the ability and incentive to discriminate in favor of its own retail operations, from gouging competitors.

The Commission has ample authority, pursuant to section 251(c)(6), to prevent incumbent LECs from placing collocators in a room or isolated space separate from the incumbent's own equipment. For example, an incumbent's placing collocators in isolated or separate space affects the ability of collocators to collocate equipment that is "directly related to and thus necessary, required, or indispensable to 'interconnection or access to unbundled network elements.'"[42] Because DSL is a distance-sensitive technology, it is of vital importance to the quality and variety of service that Covad can offer that loops be as short as possible. As such, Covad must collocate its equipment as close to the terminating point of the loop, generally a main distribution frame (MDF), as possible. Forcing Covad to collocate on a separate floor, or even in a separate room, would have an impact on Covad's ability to access UNEs via its collocated equipment. It would similarly prevent consumers from accessing the innovative service Covad seeks to provide. The incumbent LEC has no incentive to act on its own to permit Covad to collocate its equipment where such equipment has the most technically viable access to loops. The Commission must establish a rule requiring incumbent LECs to permit Covad and other competitive LECs to select the collocation space of their choice, subject only to the legal limitation in the statute. Preventing Covad from collocating its equipment in

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[42] *Id.* at 424.

such a manner would be unjust, unreasonable, or discriminatory within the meaning of section 251(c)(6).

In addition, placing collocators in such an isolated room or space would increase the costs of conditioning space for physical collocation or otherwise affect physical collocation costs. Such cost increases would eliminate the cost savings from cageless collocation. Covad has been faced with incumbent LECs that required construction of walls, staircases, separate entrances – all because of the absence of concrete rules preventing such behavior. Not only would construction of such a wall or structure lengthen collocation intervals, but it would violate the Commission's existing – and not disturbed by the court – security rules. Those rules require incumbent LECs to rely on inexpensive, limited security measures, such as card access systems, and not to impose more stringent requirements – such as construction projects – in the name of security. The Commission has the foundation in place for preventing such incumbent LEC behavior.

Minimum space requirements

In the *Advanced Services First Report and Order*, the Commission took steps to prevent incumbent LECs from placing unreasonable minimum space requirements on collocating carriers.[43] Specifically, the Commission required incumbent LECs "to make collocation space available in single-bay increments, meaning that a competing carrier can purchase space in increments small enough to collocate a single rack, or bay, of

[43] *Advanced Services First Report and Order*, 14 FCC Rcd at 4785-86, ¶ 43.

equipment."[44] The Commission did not specifically address, however, whether incumbent LECs must make physical collocation space available in smaller increments. In its Petition for Reconsideration, Sprint asks the Commission to require incumbent LECs to make physical collocation space available in increments of less than a rack or bay.[45] In *GTE v. FCC*, the D.C. Circuit affirmed that incumbent LECs must not impose unreasonable minimum space requirements on collocators.[46]

As Covad argued in its Comments in the initial NPRM in this docket, cageless physical collocation gets away from the retrograde, "one-size-fits-all" cage-based and segregation approach that ILECs have established. Different CLECs have different collocation needs, and the collocation needs of even one CLEC may vary from office to office. For instance, to serve smaller communities like Saint Margarets, MD, Covad may only need to collocate one or two bays of equipment, which would take up, at most, 15-30 square feet of floor space. To require the CLEC to in all cases construct a large, segregated collocation room (with a separate entryway, doors, heating and air conditioning, and sometimes earthquake-proof support structures) to support an ILEC-required minimum 100 square foot space is not only *silly*, it is costly and time-consuming, wastes precious central office space, and ultimately presents a substantial barrier to entry.

The Commission's cageless collocation rules were specifically upheld by the court in *GTE v. FCC*, and as a result the rules it adopts to implement the cageless

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[44] *Id.* at 4785-86, ¶ 43. A "rack" or "bay" is a structure consisting of vertical panels or mounting strips within which an incumbent LEC or collocator places equipment shelves and/or equipment. A "line-up" is a series of racks or bays arranged side-by-side.

[45] Sprint Petition at 6.

[46] *GTE v. FCC*, 205 F.3d at 426.

collocation requirement are necessarily permitted by the statutory authority the Commission properly exercised in adopting cageless requirements. ILECs must be required to permit CLECs to physically collocate equipment on a single bay increment basis – or even smaller of a space if technically feasible -- in an already-conditioned area of the ILEC central office. Sufficient conditioned space generally already exists in ILEC central offices, especially since advances in computing technology have shrunk the size of telecommunications equipment. It is silly to require CLECs to condition *new* space in an ILEC central office if sufficient conditioned space already exists. The separation of CLEC bays from ILEC bays on a bay-to-bay basis is sufficient separation of CLEC and ILEC equipment. Such a rule is particularly important where space in a central office is nearly exhausted. In such a case, an incumbent LEC should be required to permit placement of competitive LEC equipment within the same rack as the incumbent's own equipment, subject only to the same security parameters that the Commission has previously permited. Since the time of the AT&T divestiture, AT&T and RBOC equipment in central offices have often been separated only by painted lines on the floor to distinguish AT&T equipment bays from RBOC equipment bays.

Other Issues

There are several other steps the Commission should take to bring an end to the anticompetitive collocation practices of incumbent LECs.

Migration of Virtual to Cageless Collocation Arrangements

The Commission must expressly require incumbents LECs to permit CLECs to convert their existing virtual collocation arrangements, or pending virtual applications, to cageless, within ten calendar days of the request of the CLEC. Currently, incumbents

have refused to permit Covad to convert its virtual collocation arrangements to cageless arrangements. By way of background, Covad has (reluctantly) collocated virtually only in those central offices where incumbents have claimed that no space is available for physical collocation.[47] After the Commission's March 1999 collocation order, incumbents "magically" began to discover space in their central offices, in the wake of the Commission's new rules. Yet incumbents refused to permit Covad and other competitive LECs to transfer their virtual arrangements to cageless. Rather, incumbents have required Covad to (a) reapply for collocation space, including payment of fees, (b) remove equipment from the virtual collocation space, and (c) reinstall the same equipment, often in space adjacent to the virtual site. This process unnecessarily would impose additional costs on CLECs and also risks taking customers out of service while this conversion took place. There is simply no need for this Keystone Cops routine, because CLECs are entitled to collocate in any unused space in the central office, and in-place conversion of this equipment should simply be a paper process.

After two years of denying Covad space in central offices, and forcing virtual collocation arrangements, incumbents that "rediscover" space in central offices they once claimed were full are now requiring CLECs to start the multi-month collocation process all over again, put existing customers at risk of losing service, and altogether delaying competition further. There is absolutely no change in facilities or procedures necessary for migration from virtual to physical (other than a change in the ILEC's attitude towards competition). The FCC should clarify that CLECs must be permitted to migrate their

[47] Virtual collocation is not Covad's preferred collocation method, because it denies Covad access to its equipment and makes it difficult to provide quality of service to customers. It is, however, the only option when the incumbent claims space is exhausted, because Covad cannot otherwise serve customers at all.

virtual collocation arrangments to cageless collocation arrangements, without moving equipment, without reapplying for space, and within ten days of the CLEC request for such migration.[48]

ILEC completed Cable and Power augments in 15 calendar days

Although the adoption of a 90 calendar day default collocation provisioning interval was an important procompetitive step, the Commission has further work to do to bring an end to anticompetitive collocation practices. The most important provisioning interval left unchecked is the collocation augment interval – and a 90 day period for collocation augments is woefully inadequate. As competitive LEC collocations continue to grow (Covad alone is collocated in 2000 central offices around the country), the need for augments to those collocation arrangements will become as frequent, if not more frequent, than the need for new collocation space. In the *Collocation Order and NPRM*, the Commission recognized, but failed to act upon, the fact that augmenting an existing collocation arrangement should take less time than establishing a new arrangement.[49]

In Covad's experience, incumbent LECs require competitors seeking modifications to collocation space, such as relocating racks, increasing transmission capacity, or augmenting power levels, to begin the collocation process from scratch. That

[48] Several state commissions have acted to require such migration. There is, however, no substitute for a federal rule to replace the majority of states who have not so acted, and to deny incumbent LECs the ability to delay competition by forcing competitors to litigate the issue in each and every state. *See* Massachusettss Department of Telecommunications and Energy, Verizon Tariff 17 Order at 34-35, 80-82 (requiring Verizon to permit conversion of virtual collocation arrangements to cageless); New York Public Service Commission, Case 99-C-0715 and 95-C-0657, Order Directing Tariff Revisions (issued Aug. 31, 1999) at 7 (requiring Verizon to permit migration of virtual to cageless collocation).

[49] *See Collocation NPRM and Order* at para. 31 n. 79 (noting that the North Carolina Utilities Commission has set a 15 calendar day interval for augmenting certain cabling arrangements and a 30 calendar day interval for augmenting other specified cabling arrangements; also noting that the Texas Commission set provisioning intervals as low as 15 calendar days for augments for certain power, lighting, and interconnection conduits).

is, Covad must file a collocation application (checking a box on the front marked "augment" instead of "new arrangement" is the only difference), pay application fees, and await the same provisioning interval as for a new collocation arrangement. There is no reason for the requirement to treat an augment like a new arrangement, other than increased costs and delay.

The Commission must recognize that a separate collocation augment interval is just as important as an interval for new collocation arrangements. When Covad exhausts the space, or the power, or the cabling in an existing arrangement, it will be effectively unable to serve new customers until such time as the incumbent LEC completes the requested augments. The exact same principles that led the Commission to adopt a concrete provisioning interval for new collocation builds should lead the Commission to act as to augments as well. Covad requests that the Commission adopt a concrete 15 calendar day interval for collocation augment.[50] Such an interval will apply to, among other things, augments to power capacity, cable facilities, and racking. As with the Commission's collocation intervals, the time of the augment interval will run from time of application to time of completion via turnover of the requested facilities in working order.

Unrestricted access to collocation arrangements

In a virtual collocation arrangement, carriers not wishing to devote the resources and manpower to maintaining collocation space may contract with the incumbent LEC for installation, maintenance, and repair services. In such a "virtual" collocation

[50] *See, e.g.* SWBT Local Access Service Tariff – Texas at Section 5, Sheet 13.11, para. 6.1.3 (offering cabling, power, lighting and conduit collocation augment interval of 15 calendar days).

arrangement, a carrier without a sufficient workforce to handle collocation arrangements can purchase all of the necessary services from the incumbent LEC.

In offices where Covad has been denied collocation space, Covad has opted to purchase virtual collocation (which remained available in certain "no-space" offices). Where Covad has been unable to "migrate" those virtual arrangements to cageless collocation, Covad remains subject to incumbent LEC policies related to virtual collocation. Those policies prevent Covad from having any access to its virtually collocated arrangements.

A lack of access to its equipment denies Covad the most basic ability to provide quality service to its customers. In particular, in the case of a service outage, Covad is unable to provide the 24/7 technical support that its customers demand, but rather is beholden to the more limited coverage hours an incumbent LEC chooses to provide. In addition, Covad is unable to troubleshoot equipment problems via its expert technicians – a particular problem given the lack of expertise among incumbent technicians, who are trained to operate a far narrower range of DSL equipment than Covad possesses. In sum, Covad's lack of access to its equipment severely limits its ability to offer a wide variety of service to its customers.

The Commission must clarify that its rules related to virtual collocation in no way limit the ability of a competitive LEC to access its virtually collocated equipment. Whereas Covad initially contracted with the incumbent LEC to install collocation arrangements on its behalf (the "virtual" aspect of collocation), there is no justification for an incumbent LEC completely denying competitive LECs access to their equipment on an ongoing basis. Competitors are free, of course, to continue to pay the incumbent to

conduct routine maintenance and troubleshooting activities, but the incumbents should not be permitted to deny access outright. After the initial collocation provisioning is finished, the "virtual" aspect of collocation has been satisfied, and competitive LECs must have the option of accessing their equipment. Any other interpretation of the Commission's rules, such as undertaken by the incumbents, is a discriminatory bar to the rights of their competitors. The Commission must clarify that competitive LECs may, if they so choose, garner free and unfettered access to their virtually collocated equipment, as if they were exercising their access rights pursuant to the Commission's physical collocation rules. Such a finding does not eviscerate virtual collocation – it simply makes it a more attractive and viable collocation option. Virtual collocation simply means that the incumbent LEC makes itself available to conduct certain activities on the part of its competitors – it does not empower the incumbent to deny its competitors the access to their equipment they need in order to offer service to their customers.

Finally, the Commission must clarify its central office access rules in the face of yet another discriminatory practice. Incumbent LECs have interpreted the Commission's rules requiring unfettered access to central offices as applying to only certain limited designated areas within those offices. Thus, for example, Covad's efforts to access a linesharing splitter collocated close to an incumbent LEC frame are often rebuffed because the incumbent doesn't view that space as "CLEC" space. In addition, where Covad has purchased facilities that terminate on an incumbent frame, the incumbent will not permit Covad technicians to access those facilities for troubleshooting purposes. These types of limitations pose a serious threat to Covad's ability to offer service, as they severely limit troubleshooting, maintenance, and repair activities on Covad's network.

The Commission must clarify that its central office access rules apply to all aspects of the competitive LEC's network, not just where the incumbent feels comfortable. Put another way, an incumbent LEC cannot deny a competitive LEC permission to access its leased or collocated facilities, regardless of where in the central office they may be. Artificial incumbent limitations like "no access to our frame" or "don't go near your splitters" serve only to bar Covad access to its own equipment and facilities. The Commission must conclude that competitive LECs can access any area of, and any facilities or equipment in, the central office that the competitive LEC either leases or collocates equipment and facilities.

DC Power charged at a metered rate verses a fused rate

The Commission must take action to restrict Verizon from continuing a discriminatory collocation power pricing scheme that is costing Covad hundreds of thousands of dollars throughout Verizon's footprint. Verizon inflates its collocation power charges through a rate structure that goes against industry practice, its own cost studies and even common sense.

By way of background, Covad's collocated DSLAM equipment uses or, in the jargon of the industry, "drains" no more than 40 amps of power at any one point in time.[51] Although Covad requests 40 "drained" amps when setting up its collocation arrangements in Verizon central offices, Verizon fuses the power supply at 1.5 times the drained amps (or, in this case, 60 amps).[52] In addition to fusing, Verizon also provides a

[51] Power is measured along two dimensions: amps and volts. Amps measure the volume of power, while volts measure the intensity of the power. One analogy for amps and volts would be water volume and pressure, each of which may vary in any given water pipe, but are clearly related to each other. For purposes of collocation power, amps are the relevant measurement.

[52] Fusing the power supply protects Covad's equipment from electrical surges in much the same way that household fuses before the advent of the circuit breaker protected home electrical systems. The reason that

redundant power feed in case the primary feed fails. Even though there are two power feeds (both of which are fully operational and connected to Covad's equipment), Covad nevertheless does not draw more than 40 amps of power at any time.

Instead of charging Covad for 40 drained amps per piece of equipment, Verizon charges Covad for 120 amps. Verizon treats the 60 fused amps as if they were drained amps and multiplies this result by two to account for the back up power feed. These charging practices are unreasonable. Not surprisingly, Verizon's power charges are the highest in the country.

1. It Is Improper to Base Power Charges Upon Fused-Amps

Covad should not pay for power based upon the number of fused amps. There is no circumstance in which Covad's equipment would use any more than the requested 40 amps, other than during an electrical surge (which in most cases would be caused by Verizon's equipment anyway and would cause the fuse to "blow"). In negotiations with Covad, Verizon has made the nonsensical argument that charging based upon fused amps is appropriate because Verizon has no way to meter how much power Covad consumes and that to do otherwise would encourage cheating. But the fact remains that Covad's equipment simply cannot use more than the requested 40 amps of power and operate reliably. It would be reckless for Covad or any other carrier, including Verizon, to exceed 2/3 of a fuse's rating. Whatever costs savings Covad could reap by pushing a 60 amp fuse to its limit would be quickly overwhelmed by the costs of dealing with constant service outages due to frequently blown fuses (forcing Covad to engage in emergency

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Verizon fuses at 1.5 times the drain is because fuses will not operate reliably as the power level exceeds 2/3 of the fuse's maximum-rated power capability. In other words, a 60 amp fuse becomes more likely to "blow" as the power climbs above 40 amps. Various factors determine a particular fuse's sensitivity, including the ambient temperature and the amount of time that the fuse actually handles power exceeding 2/3 of its rating.

repair operations on a regular basis). Covad would never risk harming the integrity of its network, destroying its equipment, jeopardizing the value of its customer goodwill, or incurring the cost of remedying constant service outages merely to siphon more than 40 amps of power illicitly.

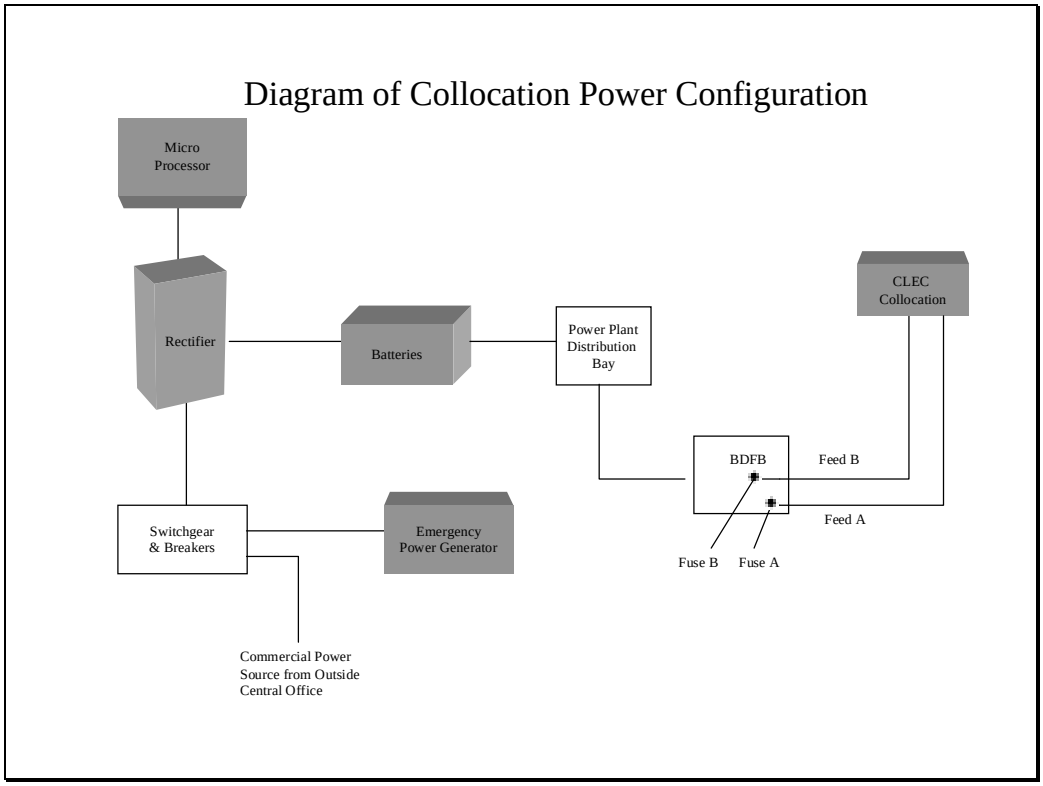
It is no coincidence that Verizon is the only Bell Operating Company in the country to charge for power based upon the rating of the fuse. Indeed, even Verizon's own FCC collocation tariff does not assess power charges in this manner. Rather, it bases power charges upon the amount of drained amps requested.

The Commission should not countenance Verizon's practice of charging for collocation power based upon the number of amps that are fused.

2. It Is Unreasonable to Charge for Back-Up Power by Doubling the Fused Amps Or Even the Drained Amps

Collocators typically request a back-up power feed with each primary feed serving their equipment. As noted above, Verizon assumes that the collocator consumes double the requested number of amps allegedly in order to recover the cost of the redundant power feed. Although Covad does not claim that Verizon should charge nothing for the back-up feed, Verizon's current charging practice is patently unreasonable.

The back-up power feed is not truly redundant. The following is a diagram of a typical power configuration arrangement serving a CLEC collocation site.



It is evident from the diagram that the primary feed (labeled "Feed A") and the back-up feed (labeled "Feed B") are redundant only starting at the Battery Distribution Fuse Bay (labeled "BDFB"). There is no redundancy for any of the equipment that appears closer to the power source (labeled as "Commercial Power Source"), which accounts for the majority of the power costs. In fact, there is back-up power provided via an emergency generator even if the collocator orders only one feed, and Verizon's rates already include the cost of that generator.[53]

The point of having a back-up feed is merely to ensure the continuous flow of power if a fuse blows at the Battery Distribution Fuse Bay. Plainly, collocators should not pay double the recurring power charges simply because they have an additional feed

[53] Attached hereto as Exhibit A is a non-proprietary workpaper from Verizon's New York cost study supporting power charges. Verizon provided this material to resolve its dispute with Covad over power charges.

travelling from the Battery Distribution Fuse Bay to their collocation arrangement (and consequently make *no* additional use of the other elements in the configuration, such as the power plant distribution bay, the emergency generator, the rectifier, the microprocessor, or the switchgear). At most, collocators should pay only for the cost of establishing the additional feed, which could even be paid on a nonrecurring basis. For these reasons, Verizon's back-up power charges are not based upon the cost of providing the service, as the Act requires.[54]

No restrictions on ILEC approved venders

It is Covad's experience that incumbent LECs utilize the "contractor approval" process to delay access to central offices. The Commission has previously spoken on the issue of incumbent LEC approval of third party vendors, and concluded that incumbents may not unreasonably withhold approval from competitive LEC vendors who need access to collocation space. In so holding, the Commission applied a simple nondiscrimination obligation to the incumbents, barring them from imposing more stringent approval requirements on competitor contractors than they do on their own.

Covad has been the victim of a loophole in the Commission's rules that incumbent LECs are exploiting to their advantage. Rather than simply permitting contractors that the incumbent LECs themselves have used in their own central offices to perform work on behalf of a competitor, the incumbents are forcing Covad to jump through ridiculous procedural hoops. Contractors and other vendors that have been accessing incumbent central offices on behalf of the incumbent are barred at the central office door when they try to enter on behalf of a competitor. Indeed, these same

[54] *See* 47 U.S.C. § 252(d)(1)(A).

contractors must go through the entire approval process, obtain separate IDs, and suffer through the delay inherent in the "approval" process. The Commission must clarify its third party access rules to make clear that incumbent LECs may not discriminate in this manner. The Commission should conclude that an incumbent-approved vendor or contractor, or agent thereof, must be granted immediate unfettered access to central offices pursuant to that existing approval. Incumbents must not be permitted to impose delay-inducing procedural requirements on vendors and contractors they have already approved.

Space Reservation Policies

Several state commissions, including the California Commission, Texas Commission, and Washington Commission, have taken significant steps to limit the period for which incumbent LECs and collocators can reserve space in incumbent LEC premises. These state policies properly recognize the importance of space reservation practices and their impact on a competitive LECs' ability to collocate in certain incumbent LEC premises.

Covad agrees with Sprint -- a national space reservation policy is desperately needed. In the absence of a space reservation restriction, incumbent LECs have the unfettered ability to foreclose entry into important central offices in the name of reserving space for their own use without limitation. This is another gaping hole in the Commission's collocation policies, one that can swallow each of the procompetitive rules the Commission has in place. The Commission should adopt as a national rule the space reservation rules put in place by the Texas Commission. Texas has restricted space reservation in SBC central offices to one year for transport equipment; three years for

digital cross-connect systems; and five years for switching equipment, power equipment, and main distribution frames.[55] Where a state does not set a standard that is more stringent than that adopted by the Commission, the federal rule would apply.

Conclusion

For the foregoing reasons, Covad respectfully requests that the Commission adopt the recommendations herein.

Respectfully submitted,

_/s/ Jason D. Oxman_____

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[55] *Texas Commission Order No. 59* at 3.